Judy Hoy Independent Wildlife Researcher 2858 Pheasant Lane Stevensville, MT 29870

California Environmental Protection Agency Esther Barajas-Ochoa Regulations Coordinator Office of Environmental Health Hazard Assessment P.O. Box 4010. MS-12B 1001 I Street Sacramento, CA 95812 esther.barajas-ochoa@oehha.ca.gov

Re: Proposed No Significant Risk Level (NSRL) for the chemical glyphosate to be adopted into regulation in Title 27, California Code of Regulations, section 25705.

Dear members California Environmental Protection Agency,

In 1996 there was a significant increase in use of Roundup and its primary ingredient, glyphosate, on Roundup Ready crops here in Western Montana and in the fields in the states immediately upwind of Western Montana, including California. There were corresponding observations of serious health issues and birth defects on wild and domestic animals and the same health issues and birth defects on newborn children. As the planting of Roundup Ready crops increased, the prevalence of those health issues and birth defects went up, correlating closely with the increase in use of glyphosate. While correlation does not prove causation, such close correlation with the increase in so many birth defects and health issues (including liver cancer) on human newborns and humans of all ages (according to CDC records) should raise concerns. The third most prevalent birth defect observed on wildlife are defects of the newborn's heart. Heart defects are now the #1 birth defect on human newborns.

As you can see by our 2015 study, (Hoy J, Swanson N and Seneff S. The High Cost of Pesticides: Human and Animal Diseases. *Poult Fish Wildl Sci.* 2015;3:132. doi:10.4172/2375-446X.1000132), the correlation between the increase in use of glyphosate and the increase in liver cancer in humans of all ages was 93%. That is very close correlation and strongly indicates that glyphosate is at least partially responsible.

Also shown by our study, the increase in heart defects on human newborns had an even higher correlation with the increase in the use of glyphosate at over 98% and the correlation between the increase in ERV for all ages and the increase in glyphosate applications is over 95%. A correlation of over 98% strongly indicates that exposure to glyphosate is responsible for heart defects becoming the #1 birth defect on human newborns in the last 20 years.

As you can see by our study, no health issues observed on the wild animals had a correlation coefficient of less than 85% correlation with the same issues on humans (according to CDC records). Most of the 11 issues addressed had a correlation coefficient between the increase in use of glyphosate and the health issue of over 90%. Why would so many health issues, including never before observed birth defects on wildlife, correspond with the increase in the use of glyphosate. This could not possibly happen unless glyphosate was responsible for those adverse health issues, including the previously unreported birth defects on wild and domestic animals. Some of those birth defects now have a prevalence of over 65% on wild grazing animals and domestic goats, the animals that appear to be most affected.

Please especially take the health of newborns into consideration when determining the No Significant Risk Level (NSRL) for the chemical glyphosate. It very strongly appears that it takes very little increase in glyphosate exposure to cause serious health issues, birth defects and cancer. Thank you for considering our study's findings.

Sincerely, Judy Hoy